

REMARKS

I. Preliminary Remarks

Claims 1, 9, 24, 30, and 36 have been amended. With regard to claims 24 and 36, they have been amended to correct grammatical and minor typographical errors as pointed out by the Examiner. No new matter has been added. Claims 26 and 28 were cancelled. New claims 41-50 were added. Dependent claim 26 was allowed subject to being rewritten in independent form. In this regard, claim 26 was cancelled and new independent claim 41 is added with the limitation of claim 26 and the base claim 9. Dependent claims 42-50 based on independent claim 41 are also added. Accordingly, new claims 41-50 are allowable over the art of record. Claims 1-25, 27, and 29-50 are now pending.

II. Rejection Under 35 U.S.C. 112

Claim 31 was rejected under 35 U.S.C. 112, second paragraph as being indefinite. Claim 30 has been amended to provide antecedent basis for the term "cylinder" in dependent claim 31. With regard to the term "a voice coil" in claim 31, it is a newly introduced element that is coupled to the cylinder recited in claim 30. Therefore, it is respectfully submitted that the rejection of claim 31 under 35 U.S.C. 112, second paragraph, should be withdrawn.

III. References Cited

The Office Action rejected claims 1-6, 8-11, 13-16, 18-23, 25, 27-34, and 36-40 under 35 U.S.C. 102(b) as being anticipated by Sato (U.S. Patent No. 5,848,173). Under U.S.C. 103(a), claims 7, 24, and 40 were rejected in view of Sato and Perkins (U.S. Patent No. 6,176,345); claim 12 was rejected in view of Sato and Kohara (U.S. Patent No. 5,511,131); and claims 17 and 35 were rejected in view of Sato and White (U.S. Patent No. 3,997,023).

Applicants respectfully traverse the rejections.

With regard to amended independent claim 1, none of the cited references teach or suggest a diaphragm that is free along the upper edge of the cylinder. For instance, Sato is directed to a loudspeaker without a surround around the diaphragm 8. See column 1, lines 4-7. However, attached on an outer periphery 8b of the diaphragm 8 is provided the cylindrical ring 10, thereby forming a gap of about 1 mm between the ring and an inner surface 7a of the frame 7. An annular sealing member 11 is attached around the lower edge of the ring 10. The sealing

member 11 allows the diaphragm 8 to be able to move in the frame 7 in the axial direction by sliding on the inside wall 7a of the frame 7. In addition, the sealing member 11 blocks the passage of the air through the gap between the frame 7 and the diaphragm 8 so that the air flows only through the porous damper 6a. See column 5, lines 29-59. Even without the sealing member 11, the ring 10 is still provided so that the gap between the ring 10 and the frame 7 is small to control the amount of air that passes through the gap. See column 6, lines 7-23.

Likewise, Perkins discloses that the compliance (suspension) 76 couples the diaphragm 44 to the frame 96, so that the diaphragm is not free along the edge. See Figure 3 of Perkins. Kohara also discloses that the edge of the diaphragm 17 is coupled to the damper 18. See column 3, lines 15-20. White discloses the edge of the cone 13 coupled to the surround 15. See column 1, lines 60-65. Accordingly, none of the cited references teach or suggest a "diaphragm [that] is free along the upper edge of the cylinder" as recited in amended claim 1. Accordingly, independent claim 1 and its dependent claims are in condition for allowance.

With regard to amended independent claim 9, none of the cited references teach or suggest a first surround that has one roll between the cylinder and the housing. For instance, Sato, Perkins, and Kohara, all teach a multiple roll dampers 6, spiders 88, and damper 21, respectively. Accordingly, independent claim 9 and its dependent claims are in condition for allowance.

With regard to amended independent claim 30 and new independent claim 41, both claims recite that the first surround and the second surround are made of different materials. The Examiner indicated that such limitation is not disclosed or suggested by the cited references. Accordingly, both claims 30 and 41, and their respective dependent claims are in condition for allowance.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that the claims in the application patentably distinguish over the cited and applied references and are in condition for allowance. Reexamination and reconsideration of the application, as amended, are respectfully requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is respectfully requested to call Applicants' undersigned representative at (213) 689-5176 to discuss the steps necessary for placing the application in condition for allowance.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 07-1853. Should such additional fees be associated with an extension of time, applicants respectfully request that this paper be considered a petition therefore.

Respectfully submitted,



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